PATTON BOGGS LLP

2550 M Street, NW Washington, DC 20037 202-457-6000

Facsimile 202-457-6315 www.pattonboggs.com

April 27, 2012

Stephen Díaz Gavin Direct 202-457-6340 Direct Fax 202-457-6482 sgavin@pattonboggs.com

Ms. Marlene H. Dortch Secretary Federal Communications Commission 445 Twelfth Street, S.W. Washington, DC 20554

Re: Applications of Comcast Corporation, General Electric Company and NBCUniversal Inc. for Consent to Assign Licenses and Transfer Control of Licenses, MB Docket No. 10-56, Response to Comcast Response to Bloomberg L.P.'s Comments to Annual Report of Compliance

Dear Ms. Dortch:

SUMMARY

Bloomberg L.P. ("Bloomberg") hereby provides additional data in response to Comcast's Response¹ to Bloomberg's Comments² to Comcast's February 28, 2012 Annual Report of Compliance in the Comcast-NBCU merger docket.³ Comcast's Response makes three arguments. It asserts that Bloomberg has submitted incorrect and unsourced information on channel lineups. It asserts that Bloomberg has no right to comment on Comcast's compliance

¹ See Letter to Ms. Marlene H. Dortch, Secretary, Federal Communications Commission, MB Docket No. 10-56, dated April 24, 2012 (hereinafter, "Response").

² See Letter to Ms. Marlene H. Dortch, Secretary, Federal Communications Commission, MB Docket No. 10-56, dated April 10, 2012 (hereinafter, "Comments").

In re Applications of Comcast Corp. General Electric Co., and NBC Universal Inc. for Consent to Assign Licenses and Transfer Control of Licensees, Memorandum Opinion and Order, MB Docket No. 10-56, 26 FCC Rcd 4238 (2011)(hereinafter, "Order"). Bloomberg clarifies that it filed its Comments in the merger docket only in order to respond to Comcast's statement regarding "avoid[ing] even unintentional compliance concerns..." See Comcast Annual Report on Compliance, MB Docket No. 10-56, filed Feb. 28, 2012, at 6.

PATTON BOGGS

Ms. Marlene H. Dortch April 27, 2012 Page 2

with merger conditions as part of the merger docket – but rather must amend Bloomberg's pending complaint against Comcast for failure to comply with the news neighborhooding condition. It asserts that Comcast's disagreement regarding the configuration of these four news neighborhoods provides a reason for further delay in addressing the neighborhoods which constitute the Bloomberg complaint.

First, as explained below, the source of the data of which Comcast complains is ultimately Comcast. Tribune Media Service ("TMS") obtains the channel position data from Comcast for use by professionals and is verified by the representations Comcast makes to the public on its own web site of its reliance on TMS for its own channel lineups. Second, Bloomberg, as a party to the merger proceeding, has a right to rebut Comcast's inaccurate assertions regarding its compliance with merger conditions, in particular the one that directly affects Bloomberg, and to do so as part of the merger docket. Finally, in order to avoid any further delay in acting on the time-limited merger condition, Bloomberg has not amended its complaint to include the information in its Comments. Comcast has not challenged the configuration of *any* of the cable systems in which Bloomberg has, since June of 2011, sought to be neighborhooded. It is absurd for Comcast to argue that disagreement about the information in Bloomberg's Comments, which is not part of the record in the complaint proceeding, provides a reason for further delay of the Bloomberg complaint.

CHANNEL PLACEMENT

As explained below, Bloomberg relies upon industry-accepted third party (TMS) data about channel lineups. This is the same data that Comcast's own experts use and that Comcast references on its own web site (http://xfinity.comcast.net/tv-listings (hereinafter, "Interactive Channel Web Site")). See Exhibit 1 for channel lineup information for Claxton, GA; Crescent City, FL; Bethel, CT; and Etna/Enfield, NH.

Bloomberg does not, of course, have control over channel changes on Comcast systems, nor does it have access to Comcast's internal data relating to channel changes. In an effort to secure accurate information regarding news neighborhoods, Bloomberg has relied upon data sets and related licenses from TMS, a well respected and widely cited source for data in the cable television and MVPD industry. ⁴ Comcast itself relies on TMS data to inform the public of its

[&]quot;TMS Entertainment Products Division: TMS is an international leader in entertainment navigation, providing industry-leading databases of TV, movie and celebrity information to thousands of companies that serve millions of entertainment consumers. TMS also creates consumer-facing products that feature our entertainment metadata including Zap2it.com, the entertainment fan site, Channel Guide and DISH magazines, and on-screen program guides for cable subscribers. In addition, we offer services to help our customers increase their revenue,

PATTON BOGGS

Ms. Marlene H. Dortch April 27, 2012 Page 3

channel lineups. If a customer searches for its channel lineup using the preferred Interactive Channel Web Site, the bottom of the web site states "TV listings by Tribune Media Services." Comcast and its expert witness, Michael Egan, relied on Tribune Media Service data in its Answer to Bloomberg's Complaint.⁶

The findings in Bloomberg's Comments are based on reliable third party data available to parties other than Comcast, and which has been analyzed by Bloomberg's consultant, Dr. Ali Yurukoglu.⁷ The use of this data is consistent with the Obama Administration's data-driven telecommunications policy mandate and the Commission's preference for data-driven results.⁸ Moreover, as between Comcast, TMS, and Bloomberg, Bloomberg is the party with the least control over differences in data.⁹ Importantly, Comcast has not timely raised a similar objection to the placement of news channels actually at issue in Bloomberg's Complaint.

As explained in further detail in the attached declaration by Dr. Yurukoglu, he used TMS data to analyze any possible channel or news neighborhood changes by Comcast. Dr. Yurukoglu

including advertising sales programs and marketing services to attract new subscribers. Our customer list includes many of the largest, most innovative media, software and consumer electronics companies in the world, including: TiVo, Microsoft, Dish Network, Comcast, MobiTV, and The New York Times."

http://www.tribunemediaservices.com/about-us/company-profile/42566757.html, last visited April 25, 2012.

- See Exhibit 1. See also Comcast's Interactive Channel Web Site.
- ⁶ See, e.g., Bloomberg L.P. v. Comcast Cable Communications, LLC, Answer of Comcast Cable Communications, LLC, MB Docket No. 11-104, at 12, n. 37, 13, 33, and 40 and Exhibit 5, Table A-III.
- 7 See Exhibit 2, Declaration of Ali Yurukoglu.
- ⁸ See, e.g., Remarks of Chairman Julius Genachowski to the Staff of the Federal Communications Commission, June 30, 2009 ("Our policy decisions will be fact-based and data-driven.").
- As explained in Dr. Yurukoglu's declaration, TMS obtains its data from MVPDs. Dr. Yurukoglu also noted that he used the first community name listed alphabetically for each headend served, which may have resulted in the community identified as differing from those identified by Comcast. See Exhibit 2. Bloomberg notes that one of the four markets at issue, Bethel, is a market named in Bloomberg's Complaint. However, with respect to this market, Bloomberg's Comments merely state that TMS data indicates the addition of a news channel to an existing news neighborhood. Contrary to Comcast's Response, such a statement is not material to Bloomberg's pending complaint because the Complaint already contains all of the data necessary to establish that Bethel already had a news neighborhood when Bloomberg filed its complaint. Rather, the information about Bethel, and the other markets, was submitted to refute Comcast's Compliance Report's statement that it had taken steps to avoid even "inadvertent compliance concerns" with the news neighborhooding condition.

Ms. Marlene H. Dortch April 27, 2012 Page 4

identified additions of, and changes to, news neighborhoods by comparing 2011 and 2012 channel lineup data licensed from TMS. Based on this expert analysis, four of those channel lineups indicate changes in news channel positions that create new news neighborhoods or added Comcast-affiliated channels adjacent to existing news neighborhoods. Specifically, the data obtained from TMS demonstrates that Comcast created a new news neighborhoods in Claxton, GA by moving news channels previously located in channel positions 14, 18, 39, 40 and 62 to the following channel positions: CNBC (28), MSNBC (29), CNN (30), HLN (31), and Fox News (32). A second new news neighborhood was created in Crescent City, FL by moving news channels previously located at 37, 26, and 27, and adding CNBC to the channel lineup, to the following channel positions: Fox News (33), CNN (35), HLN (36), and CNBC (37). The TMS data further indicates that Comcast moved MSNBC adjacent to an existing news neighborhood in Bethel, CT and Etna, NH.¹⁰ Bloomberg has set forth below further details of its data analysis, and has added verification of the data via Comcast's Interactive Channel Web Site. As there are not standard, uniform names identifying these headends, the market names Bloomberg used in its Comments may be different than those used by Comcast. The TMS data, however, supports Bloomberg's conclusions.¹¹

Claxton, GA

Dr. Yurukoglu identified a change in the channel lineup that TMS labeled headend id: GA10436. The 2011 TMS data indicated the following channel positions for news channels: CNN (14), MSNBC (18), CNBC (39), HLN (40), and Fox News (62). The 2012 TMS data indicates the same news channels in following channel positions: CNBC (28), MSNBC (29), CNN (30), HLN (31), and Fox News (32). Comcast's xfinitytv digital lineup for Claxton, GA is listed as Comcast Claxton Digital. The TMS data also said that the Headend Location is "Claxton" and the Community Name is Claxton. The headend also serves Daisy and Hagan, and Metter was added in 2012. Dr. Yurukoglu's practice is to analyze the digital lineup if there was both an analog and a digital lineup. When using Comcast's Interactive Channel Web Site for Claxton, the first step is to provide the zip code for the area to be served. When the zip code for Claxton is entered (30417) a choice of six different channel lineups are provided to the user. If the

_

Additional changes are likely to occur in Comcast's channel lineups going forward. Bloomberg has previously noted that Comcast has changed channel lineups nearly 11,000 times in an eleven-month period.

Dr. Yurukoglu did the same with the other markets analyzed using the digital lineup if there both a digital and analog lineup.

Ms. Marlene H. Dortch April 27, 2012 Page 5

Claxton Digital Lineup is chosen, CNBC (28), MSNBC (29), CNN (30), HLN (31), and Fox News (32) are listed as channels 28 to 32 respectively, which matches the current TMS data for Claxton. Any resulting difference from Comcast's findings may be the result of TMS labeling its data differently than Comcast's Interactive Channel Web Site. That difference, however, does not alter the result that a change in channel position was reported to TMS and is represented on Comcast's Interactive Channel Web Site and that change shows a headend that serves Claxton, Georgia has a news neighborhood including CNBC that was not there in 2011.

Crescent City, FL

Dr. Yurukoglu identified a change in the channel lineup that TMS labeled headend id: FL09660. The 2011 TMS data indicated the following channel positions for news channels: Fox News (37), CNN (26), and HLN (27). CNBC was not carried. The 2012 TMS data indicates the news channels are in the following channel positions: Fox News (33), CNN (35), HLN (36) and CNBC (37). The TMS data also said that the Headend Location is "Welaka" and the Community Name is Crescent City. The headend also serves Georgetown, Pomona Park, Satsuma, and Welaka. When entering the zip code for Crescent City (32112) into Comcast's Interactive Channel Web Site, a choice of seven different channel lineups is provided to the user. If the Welaka Digital Lineup is chosen, CNBC is in fact listed as channel 37, along with Fox News (33), CNN (35), and HLN (36). Any resulting difference from Comcast's findings may be the result of TMS labeling its data differently than Comcast's Interactive Channel Web Site. That difference, however, does not alter the result: a change in channel position was reported to TMS and is represented on Comcast's Interactive Channel Web Site and that change shows a headend that serves Crescent City, Florida with a news neighborhood including CNBC that was not there in 2011.

Bethel, CT

Dr. Yurukoglu identified a change in the channel lineup that TMS labeled headend id: CT06404. The TMS data also said that the Headend Location is "Danbury" and the Community Name is Bethel. The headend also serves Danbury, New Fairfield and Ridgefield. When entering the zip code for Bethel (06801) into Comcast's Interactive Channel Web Site, a choice of three different channel lineups is provided to the user. If the Danbury Digital Lineup is chosen, MSNBC is listed at channel 63. The 2012 TMS data shows that Comcast moved Comcast-owned MSNBC from channel 26 to a more favorable channel position at 63, placing it in a news neighborhood of Fox News (59), CNBC (60), HLN (61), and CNN (62). Any resulting difference from Comcast's findings may be the result of TMS labeling its data differently than Comcast's Interactive Channel Web Site. That difference, however, does not alter the result: a change in channel position was

Ms. Marlene H. Dortch April 27, 2012 Page 6

reported to TMS and is represented on Comcast's Interactive Channel Web Site and that change shows a headend that serves Bethel, Connecticut with a news neighborhood including MSNBC, which was not there in 2011.

Etna, NH

In his review of Comcast markets, Dr. Yurukoglu identified a change in the channel lineup that TMS labeled headend id: NH28408. The TMS data identified the Headend Location as "Etna" and the Community Name is Lebanon. The headend also serves Hartford, VT; North Hartland, VT; Norwich, VT; Quechee, VT; West Lebanon, NH; White River Junction, VT; and Wilder, VT. The TMS data also states that in 2011, the Lebanon headend served the following additional communities: Cannan, NH; Enfield, NH; Lebanon, NH; and Hanover, NH. When the zip code for Enfield (03748) is entered into Comcast's Interactive Channel Web Site, a choice of six different channel lineups is provided to the user. If the Claremont Digital Lineup is chosen, MSNBC is listed at channel 25. The 2012 TMS data shows that Comcast moved Comcast-owned MSNBC from channel 114 to a more favorable position at channel 25 adjacent to CNBC (24), Fox News (27), CNN (29), HLN (30), and The Weather Channel (31). Channel 25 is vacant in the 2011 TMS data for Headend Location "Enfield" associated with Community Name Claremont. Based on the TMS data, it is clear that there was a change in the channel position reported to TMS and reflected on Comcast's Interactive Channel Web Site for MSNBC. Any resulting difference from Comcast's findings may result from TMS's labeling its data differently than Comcast's Interactive Channel Web Site. However, even if the labeling is different, it does not alter the fact that a change in channel position was reported to TMS and represented on Comcast's Interactive Channel Web Site for MSNBC, at either the Lebanon or Claremont headend, since the TMS data reflects that channel 25 was vacant at both headends in 2011 and MSNBC is now on channel 25 in at least one of the markets.

Ms. Marlene H. Dortch April 27, 2012 Page 7

CONCLUSION

As explained above and in its Comments, Bloomberg simply relied upon industry-accepted third party data; the same data that Comcast's own experts use and that Comcast references on its own Interactive Channel Web Site. That data supports Bloomberg's assertions in its Comments.

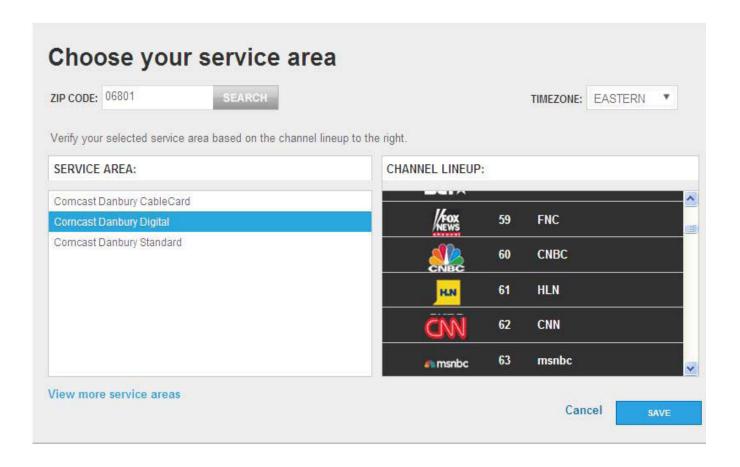
Very truly yours,

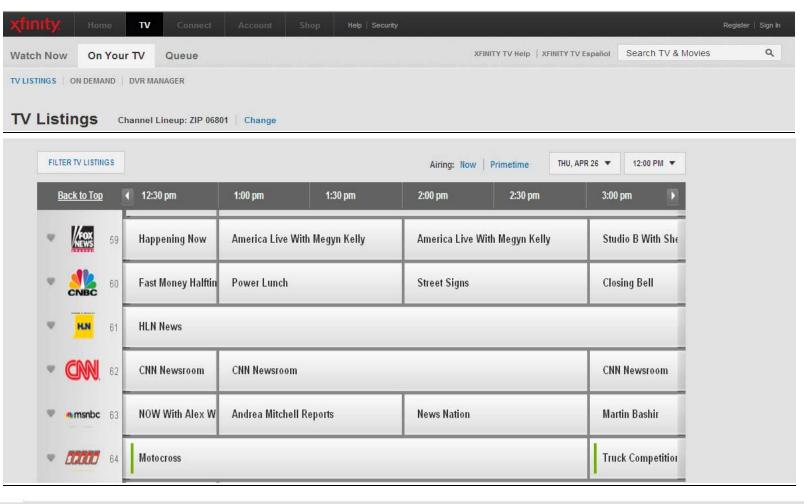
Stephen Díaz Gavin

cc: Arthur J. Burke, Counsel to Comcast Cable Communications, LLC

EXHIBIT 1

Bethel, Connecticut (Comcast Danbury Digital)

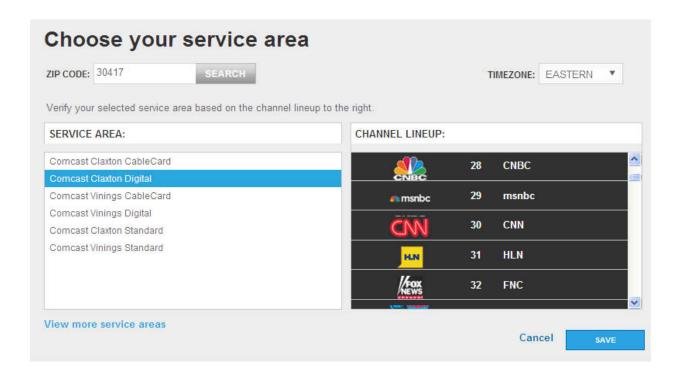


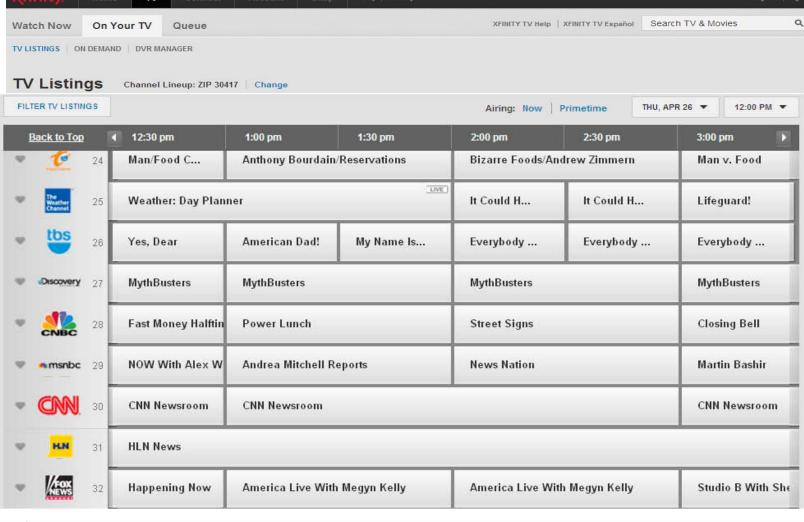




© 2012 Comcast Interactive Media, LLC. All Rights Reserved | Photo content provided by mptvimages.com | TV Istings by Tribune Media Services | 2003 Bruce Glikas | © 2004 ABC, INC. | © 2004, Tommy Miyasaki for HGTV | © 2006, Jack Parker for DIY Network | ABC | ABC Family | Andrew Eccles/The WB Television Network | Andrew MacPherson | Bob D'Amico | Bud Gray/ABC | Cartoon Network | CBS | Chris Cuffaro/NBC | © FOX (1193) | David Sutton | Evans Vestal Ward/Syfy | Fox | Frank Carroll/NBC | Gabi Rona | Gene Howard/CBS Gene Howard/NBC | Gene Trindl/ABC | Gene Trindl/CBS | Gene Trindl/NBC | Gerald Smith/NBC | Getty Images | Nintendo/Cartoon Network | Ron Grover/CBS | SCI FI Channel | Space Productions | Ted Allan | THE CW | The N | The WB Television Network | USA Network

Claxton, GA (Comcast Claxton Digital)

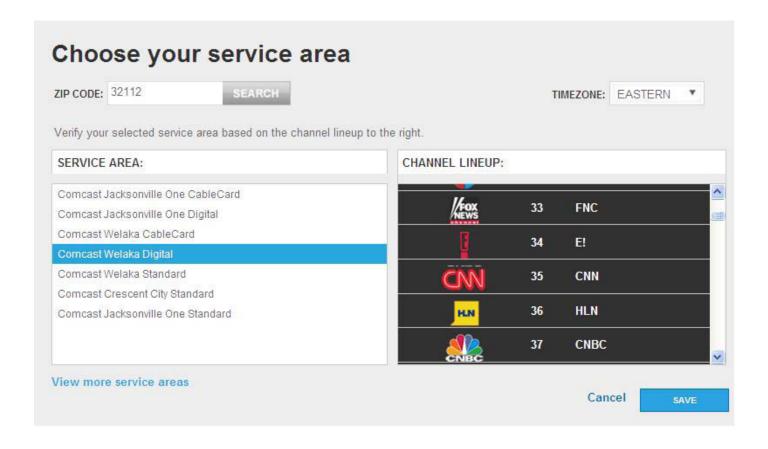


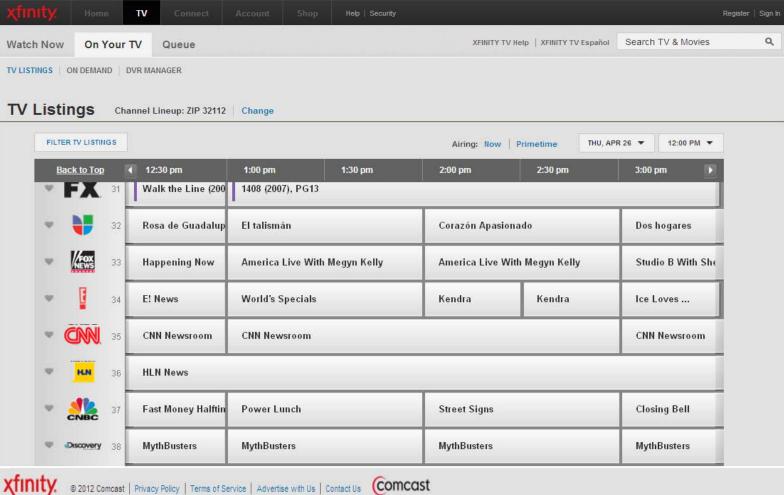


xfinity. © 2012 Comcast | Privacy Policy | Terms of Service | Advertise with Us | Contact Us Comcast

© 2012 Comcast Interactive Media, LLC. All Rights Reserved | Photo content provided by mptvimages.com | TV listings by Tribune Media Services | 2003 Bruce Glikas | © 2004 ABC, INC. | © 2004, Tommy Miyasaki for HGTV | © 2006, Jack Parker for DIY Network | ABC | ABC Family | Andrew Eccles/The WB Television Network | Andrew MacPherson | Bob D'Amico | Bud Gray/ABC | Cartoon Network | CBS | Chris Cuffaro/NBC | © FOX (1193) | David Sutton | Evans Vestal Ward/Syfy | Fox | Frank Carroll/NBC | Gabi Rona | Gene Howard/CBS Gene Howard/NBC | Gene Trindl/ ABC | Gene Trindl/CBS | Gene Trindl/NBC | Gerald Smith/NBC | Getty Images | Nintendo/Cartoon Network | Ron Grover/CBS | SCI FI Channel | Space Productions | Ted Allan | THE CW | The N | The WB Television Network | USA Network

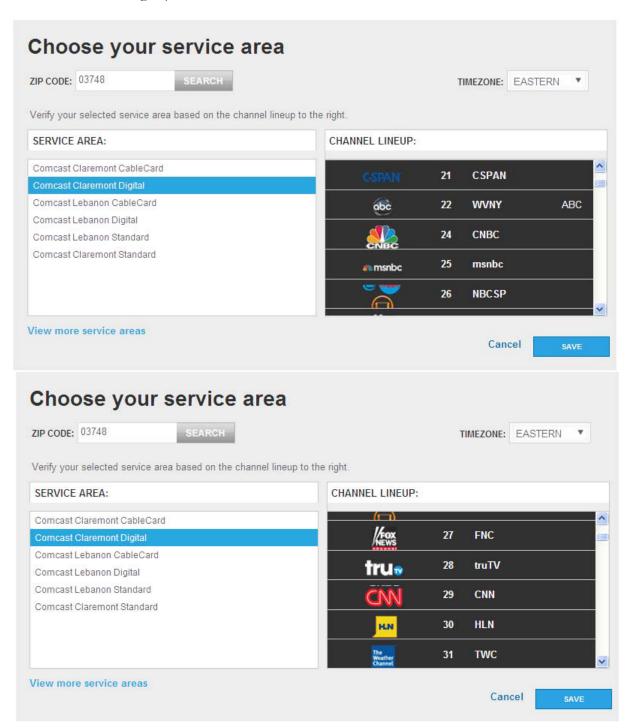
Crescent City, FL (Comcast Welaka Digital)





© 2012 Comcast Interactive Media, LLC. All Rights Reserved | Photo content provided by mptvimages.com | TV listings by Tribune Media Services | 2003 Bruce Glikas | © 2004 ABC, INC. | © 2004, Tommy Miyasaki for HGTV | © 2006, Jack Parker for DIY Network | ABC | ABC Family | Andrew Eccles/The WB Television Network | Andrew MacPherson | Bob D'Amico | Bud Gray/ABC | Cartoon Network | CBS | Chris Cuffaro/NBC | © FOX (1193) | David Sutton | Evans Vestal Ward/Syfy | Fox | Frank CarrolWNBC | Gabi Rona | Gene Howard/CBS Gene Howard/NBC | Gene Trindl/ABC | Gene Trin Nintendo/Cartoon Network | Ron Grover/CBS | SCI FI Channel | Space Productions | Ted Allan | THE CW | The N | The WB Television Network | USA Network

Etna, NH (Comcast Claremont Digital)



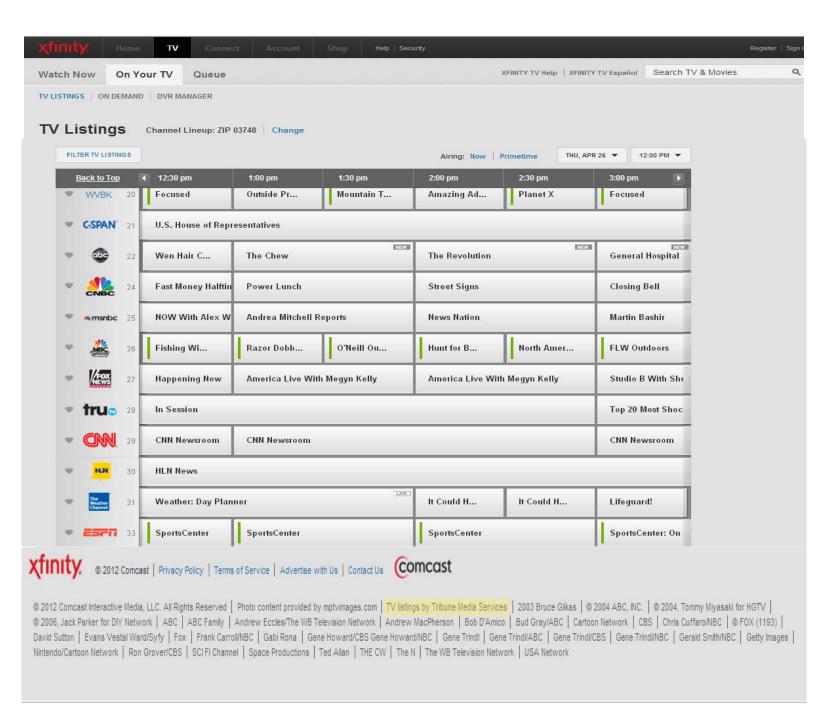


EXHIBIT 2

BEFORE THE FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of)
Applications for Consent to the Transfer of Control of Licenses)
Transfer of Control of Exerises) Docket No. MB 10-56
General Electric Company,	,)
Transferor,	Ć
То)
Comcast Corporation,)
Transferee)
)

DECLARATION OF ALI YURUKOGLU

- I, Ali Yurukoglu, hereby declare under penalty of perjury that the following is true and correct to the best of my knowledge.
- 1. My name is Ali Yurukoglu. I am currently an Assistant Professor of Economics in the Graduate School of Business at Stanford University in Stanford, California and a Faculty Research Fellow for the National Bureau of Economic Research. I received a Ph.D. in Economics from New York University in 2009.
- 2. I conduct research on topics in industrial organization. Much of my research has analyzed the cable and satellite television industries. Particularly relevant for this proceeding, I have evaluated conditions of demand and supply within the cable television industry and the consequences of regulation on economic outcomes in cable markets. I have published academic articles in such outlets as the *American Economic Review*. My works include: "The Welfare Effects of

Bundling in Multichannel Television Markets," (with Gregory S. Crawford), forthcoming, *American Economic Review*. I have attached my CV as Appendix A to this Declaration.

- 3. For the National Bureau of Economic Research ("NBER"), I was chosen as a Faculty Research Fellow. The NBER is the largest economics research organization in the United States.
- 4. Earlier this year, I was asked by Bloomberg L.P. ("Bloomberg") to evaluate the extent to which Comcast distributes news, business news, and/or public affairs television channels in neighborhoods on its cable systems' channel lineups.
- 5. This declaration explains the analysis previous filed by Bloomberg with the Federal Communications Commission ("FCC") on April 10, 2012 ("Comments"), alleging that Comcast Cable Communications, LLC ("Comcast"), has ignored the condition relating to news neighborhoods adopted by the Commission when it granted Comcast's application to transfer control of licenses from GE to Comcast ("the FCC Order").¹
- 6. My analysis describes patterns of Comcast's television channel carriage and placement, particularly of news channels, based on "channel lineup data" provided by Tribune Media Services ("TMS"). After Bloomberg obtained the data from TMS, I was provided with access to it so that I could conduct my analysis. The data provided information on channel lineups for all of the major providers of multichannel video programming ("MVPD") within the United States as of February 24, 2012 and May 4, 2011.

¹ See In re Applications of Comcast Corp., General Electric Co., and NBC Universal, Inc. For Consent to Assign Licenses and Transfer Control of Licenses, Memorandum Opinion and Order, 26 FCC Rcd 4238, 4358 (App. A, Sec. III.2) (2011).

- 7. In my experience, TMS is generally considered a reputable and reliable source of cable channel lineup data for economic research projects. TMS collects channel lineup information from individual cable and satellite television systems; verifies, cleans, and standardizes the data; and then licenses it to firms for a variety of reasons, most commonly for the provision of electronic program guides across media. It is my understanding that TMS regularly polls MVPDs for channel lineup information. Comcast's xfinityty web site (http://xfinity.comcast.net/tv-listings) also states "TV listings by Tribune Media Service," which suggests that Comcast itself relies upon TMS data for its cable system lineups, in particular, and, therefore, TMS data can be considered reliable.
- 8. Comcast replied to the Comments on April 24, 2012 ("Comcast Letter"). The declarations of Beverly Elliott (Exhibit 1, "Elliott Declaration"), Michael Daves (Exhibit 2, "Daves Declaration"), and Hollie Walterson (Exhibit 3, "Walterson Declaration") also reference channel lineup data from Comcast's own records. I have read the Comcast Letter with a particular focus on the Elliott Declaration, Daves Declaration and Walterson Declaration.
- 9. Bloomberg has asked me to explain my analysis of the TMS data that led to my conclusion that there have been channel lineup changes that new news neighborhoods were created on cable systems that serve Claxton, Georgia and Crescent City, Florida and adjacent to existing news neighborhoods on cable systems that serve Bethel, Connecticut and Etna, New Hampshire.
- 10. As is explained below, Comcast's channel lineups may differ within a community based on whether the device receiving the channel lineup data is analog, digital or contains a cablecard. For example, according to the xfinityty web site, there are separate channel lineups for Bethel, Connecticut depending on if the subscriber receives Comcast CableCard, Comcast Standard or Comcast Digital service.

- 11. The data provided to Bloomberg by TMS came in the form of three relational databases. The databases separately report information maintained by TMS as of May 4, 2011 and February 24, 2012. The first database ("lineup") reports information at the level of a headend iddevice-channel position. A headend is a facility operated by a cable system that, among other things, receives television programming (usually by satellite), organizes that programming into channel lineups, and distributes those lineups to devices (usually) attached to customers' televisions according to the type of service they have purchased from the system.
- 12. The second database ("headend") reports information at the level of the headend-zip code. It reports, among other things, the zip codes served by each headend, the community served in that zip code, the Designated Market Area ("DMA") for that zip code, the rank of that DMA among the 210 DMAs in the United States, and the Multiple System Operator (MSO) that owns that headend (e.g., Comcast Cable Communications, LLC). A DMA is a definition of television markets maintained by Nielsen Media Research.
- 13. The third database ("station") reports information at the level of the station for each station offered on any headend. It reports the channel name for that station and a corresponding id number assigned by TMS.
- 14. To create the raw dataset used in the analysis, I read in each of these relational databases using Stata, a widely used Econometric software package, kept one zip code for each headend, kept only those headends indicated as being owned by Comcast and merged the databases together according to their common fields (headend id and station number).
- 15. I next defined the set of possible news, business news, and public affairs channels that were to be the focus of my analysis. I began by identifying the most widely available (national)

news, public affairs, and business news channels. This included the most widely available national cable news networks - Cable News Network ("CNN"), Fox News Channel, HLN (formerly Headline News), and MSNBC - national cable public affairs networks - CSPAN, CSPAN2, and CSPAN3 - and national cable business news networks - CNBC, Bloomberg Television ("BTV"), Fox Business Channel, and CNBC World. I also identified High-Definition ("HD") feeds of those channels, local, state, and regional news and public affairs channels, Spanish-language news channels, an international news channel - CNN International - and a single on-demand news channel. These were determined to be news, business news, and/or public affairs channels, based on individual examination of channel names and information on the types of programming provided on specific channels, by both me and my support team. I include a list of all channels designated as possible news, business news, and/or public affairs channels as Appendix B at the end of this declaration.

- 16. For convenience, I will refer to the list of news, business news, and public affairs channels in Appendix B as "possible news channels" in the balance of this declaration.
- 17. An initial examination of the channels provided by each headend on each channel position illustrated an important issue with the raw TMS data: there were many instances of multiple channels being offered on a single channel position. This was an important problem, as defining a channel neighborhood necessarily requires accurate information on which channel(s) are being provided on which channel positions.
- 18. Further examination of the data indicated that most of these instances were due to headends providing multiple channel lineups according to the device households were using to receive the programming. Channels being delivered to different devices naturally shared channel

positions as, for example, channel 5 for a headend's Analog device need not have the same channel as channel 5 for that headend's Digital device.

- 19. To address this problem, I first defined a channel lineup as the set of channel positions provided by each device on a particular headend. For example, there may be two channel lineups on a headend: one delivered to Analog devices (with 73 channel positions) and one delivered to Digital (non-rebuild) devices (with 536 channel positions).
- 20. For each headend that provided more than one lineup that included a Digital (non-rebuild) lineup, I kept that lineup. This decision was made because Comcast is migrating quickly to all-digital systems, and digital lineups are therefore more relevant for the future than are analog lineups. For the one headend that had an Analog and Cable-ready TV lineup, I kept the Analog lineup.
- 21. Including a single lineup per Comcast headend resolved many, but not all, of the instances of multiple channels per channel position. Given the importance of accurately identifying which channel was in a channel position for the purposes of defining channel neighborhoods, I determined to resolve all of these instances. I did so in three steps.
- 22. First, I determined if the duplicated channels on a given channel position were effectively the same channel. I determined this was so if they shared the same channel name and then dropped all but one of the repeated channels for each channel position.
- 23. Second, I determined if at least one of the channels on the duplicated channel position was a possible news channel. If none were a possible news channel, then it was not going to influence how I later calculated neighborhoods of news channels and it didn't matter if it was a duplicated channel position.

- 24. Third, I resolved the last remaining duplicates, which included a possible news channel. Some of the problems arose due to different feeds of CNN en Español (Mexico and US vs. United States) being provided in the same channel position. I decided to treat these as the same channel by dropping one of them and renaming the other, "CNN en Español All Feeds". For the remaining headends, the appropriate channel lineup was found by comparing the headend id and community name from the TMS data to channel lineups for that community on the Comcast website. The Comcast website was reviewed, and it was determined which of the channels listed for the duplicated channel positions appeared to be listed in that position according to the lineup for that community.
- 25. All of these steps resulted in the final dataset on which I performed my analysis of Comcast's neighborhoods of news and public affairs channels.
- 26. I next analyzed whether neighborhoods of news, business news, and public affairs channels, as defined by Bloomberg by reference to the news neighborhood condition in the FCC Order, were evident on the cleaned Comcast lineups in the TMS data. For convenience, I will refer to neighborhoods of news, business news, and public affairs channels as "news neighborhoods" in the balance of this declaration. Bloomberg has defined news neighborhoods as consisting of (1) at least four contiguous news channels or (2) at least four news channels in a group of five channel positions.
- 27. In the FCC's Order approving the Comcast-NBC Universal Merger, the Commission defined a neighborhood as a "significant number or percentage of news and/or business news channels that are substantially adjacent to one another in a system's channel lineup." Because the relevant definition uses the term "substantially adjacent" rather than "adjacent," Bloomberg has not

employed a definition of neighborhood that required absolute contiguity (e.g., four channels in a row). Thus, four contiguous news channels and four news channels within five relative channel positions constitute a news neighborhood, as well as any longer similar pattern.

- 28. I first determined the set of news channels which would be counted in the definition of news neighborhoods. This consisted of all national news, public affairs, and business news channels as well as all local, state, and regional news and public affairs channels. I will refer to this set of channels as "news channels" for the balance of this declaration. Another way of describing the choice is that it consisted of all possible news channels defined previously less High Definition, Spanish-language and other foreign-language news channels, and the on-demand news channel. HD news feeds were omitted from the definition because HD channels are a higher-quality product that largely replicate the content of standard definition feeds. Spanish-language and other foreignlanguage news channels were omitted from the definition because they are typically located in Spanish-language and/or foreign-language neighborhoods rather than with English-language channels (including English-language news channels) and are identified by Comcast as "Multicultural" programming in their channel lineups. The on-demand news channel was omitted because it does not provide standard, linear television programming. The set of channels which were included in my calculations of neighborhoods is given by the starred (*) channel groups in Appendix B.
- 29. Second, I determined how calculations of neighborhoods should handle blank channels between channel positions reported in the TMS data. I considered two possibilities. First, I considered the actual channel position as reported by TMS in the definition of news neighborhoods. This treated a blank channel as a gap between adjacent channels. For example, news channels in positions 48, 50, 51, and 52, with channel 49 blank would not have qualified as a

neighborhood under a neighborhood definition that required four news channels to be contiguous. Alternatively, I considered *relative* channel positions in the definition of a news neighborhood. In this case, I simply listed all the channels on a headend in order of their reported channel position and assigned to them a new index, which I called their relative channel position, when calculating a neighborhood. For example, the same four channels occupied relative channel positions 46, 47, 48, and 49. Under this alternative definition of channel position, they did qualify as a neighborhood under a neighborhood definition that required four news channels to be contiguous.

- 30. I use the definition of a neighborhood based on the second method, relative channel position, in the balance of this declaration. I did so to reflect what I felt households are likely to believe to be a neighborhood based on their television usage. Many households likely decide what to watch by flipping through television channels. If so, then what matters to their perception of a neighborhood are the relative positions of channels, not their absolute channel numbers.
- 31. Having defined the news channels which would count in the calculation of news neighborhoods and the metric relative channel position that would define adjacency of channels in a channel lineup, I next defined news neighborhoods.
- 32. As noted above, the FCC Order defined a neighborhood as a "significant number or percentage of news and/or business news channels that are substantially adjacent to one another in a system's channel lineup." Because the relevant definition uses the term "substantially adjacent" rather than "adjacent," I did not employ a definition of neighborhood that required absolute contiguity (e.g., four channels in a row). Rather, I have classified both four contiguous news channels and four news channels within five relative channel positions to be a news neighborhood, as well as any longer similar pattern. For example, five or six contiguous news channels and/or five

news channels within six relative channel positions or six news channels within seven relative channel positions are also defined to be news neighborhoods. In essence, a news neighborhood, therefore, is any group of channels that, based on their relative channel position in a Comcast headend's channel lineup, included (1) at least four contiguous news channels or (2) at least four news channels in a group of five channel positions.

- 33. In what follows, I briefly describe how I implemented these definitions. Locating news neighborhoods was easiest for groups of news channels that were contiguous in Comcast's channel lineups. To do so, I defined a "pod" of channels as a collection of like channels (news or non-news) that were adjacent in a Comcast channel lineup. The type of the first pod in any channel lineup depends on whether the first channel in that lineup is a news channel or a non-news channel. Most lineups begin with a non-news channel and so the first pod was typically a non-news pod. For expositional convenience, suppose that the first pod is indeed a non-news pod. I then examined the next channel in the channel lineup. If it, too, was a non-news channel, then it was added to the first pod, making a pod of two non-news channels. I then examined the next channel in the channel lineup.
- 34. This process continued until I came across a channel of a type different than that of the current pod. Suppose for convenience this happened in the eighth channel position. Since the first pod was a non-news pod, the eighth channel must have been a news channel. This defines the end of the first, non-news, pod (which was a pod of seven channels) and the beginning of the first news pod. As always, I continued by examining the next channel in the channel lineup. If it was a news channel, it was added to the second pod, making it a news pod of two channels. If it was a non-news channel, the second pod was a news pod with a only one channel, and the non-news channel marked the beginning of the third pod (or the second non-news pod). This process

continued, adding channels to the previous pod if the channel was the same type as the previous channel in the channel lineup or defining a new pod if the channel was a different type as the previous channel in the channel lineup, until the end of the channel lineup.

- 35. By construction, pods must alternate between news pods and non-news pods. I defined a news neighborhood (based on contiguous channel groups) to be a news pod of at least four channels.
- 36. I next extended the definition of a news neighborhood to allow for a single non-news channel within a group of at least four news channels. Based on the definition of neighborhoods using pods as defined above, a group of news channels on positions 32, 33, 35, and 36 with a non-news channel on position 34 would not qualify as a news neighborhood. The previous definition of pods would define that group of channels as a news pod of two channels (channels 32 and 33) followed by a non-news pod of one channel (channel 34) followed by a news pod of two channels (channels 35 and 36).
- 37. To allow for news neighborhoods with a single non-news channel among news channels, I created an additional (broader) definition of news pods and re-calculated neighborhoods. I began by identifying all non-news pods of one channel that were not at the beginning or end of a channel lineup; by construction, each of these one-channel non-news pods was located between two news pods. I then examined whether the sum of news channels in the two pods on either side of the (singleton) non-news pod contained at least 4 news channels. If so, I called the combination of the two news pods surrounding the singleton non-news pod a "news pod allowing one non-news channel" and also defined this as a news neighborhood.

- 38. In the example above, this meant that channels 32-36 would now qualify as a news neighborhood even though one of those channels (channel 34) was a non-news channel.
- 39. Using this definition of news neighborhood, I analyzed how many Comcast headends contain news neighborhoods. I also analyzed how many Comcast headends that carry BTV have news neighborhoods.
- 40. I next examined whether BTV was being carried in those news neighborhoods that exist on Comcast headends. I also found that a small minority of Comcast headends have two news neighborhoods. I then looked at what news channels were included in news neighborhoods that excluded BTV.
- 41. I used the same methodology to identify possible news channels and news neighborhoods in the 2011 and 2012 TMS data so I could compare the results.
- 42. I then used the Stata "join" command to merge these datasets by their headend and station number. That is to say, each incidence of a station number within each headend in 2011 was matched to the same station number and headend in 2012. If a station was never repeated on a headend, this would be the same thing as merging each of the two datasets. "Joining" them instead forms all pairwise combinations of station numbers within a headend across years. In the "joined" data, there were two observations: the single observation in 2011 merged with *each* of the observations in 2012. In my analysis below, I will focus on the first instance of each channel carried by Comcast in each of its lineups.
- 43. The presence of data in one but not both years arose due to headends being present in one year but not the other, as well as headends being present in both years that contained station numbers that were present in one year but not the other. I discuss each in turn.

- 44. I focus the balance of my analysis on the Comcast headends that were present in both years. I do this largely for computational reasons. Because the headend identifiers for these headends match between the TMS data in 2011 and 2012, I have great confidence that my analysis is correctly measuring the changes in channel lineups facing the households served by these headends.
- 45. Unfortunately, this also means that my analysis is capturing an incomplete picture of the full extent of channel changes facing Comcast subscribers. Comcast subscribers being served in 2011 by a headend that was subsequently retired are no doubt being served by another Comcast headend in 2012. Unless the channel lineups on the retired and replacement headend were identical, such subscribers necessarily faced some channel lineup changes. Similarly, Comcast subscribers being served in 2012 by a new headend were no doubt previously being served by another Comcast headend in 2011. They, too, were likely to have experienced lineup changes.
- 46. I would prefer to include channel changes due to the retirement of old and the introduction of new headends in my analysis. Unfortunately, it is difficult to track down these changes. Without proprietary subscriber information, I could only do it by linking the zip codes served by old/new headends to the zip codes served by existing headends. Even then, there is the potential for overlap of zip codes.
- 47. I therefore focus my analysis only on those Comcast headends that are present in both years of the data. I reiterate, however, that this is likely to underestimate the extent of channel changes experienced by Comcast subscribers between 2011 and 2012.
- 48. In conducting my analysis of channel changes on Comcast systems between 2011 and 2012, I decided to focus only on the first instance of the network in each channel lineup. I did this largely because the networks that were carried in multiple channel positions often (1) were

multiplexed versions of high-definition movie channels (e.g. HBO HD, Showtime HD, Cinemax HD), (2) provided multiplexed or overflow content for sports networks (e.g. Big Ten Network Overflow, NFL Network, NBA TV), or (3) provided on-demand content (e.g. Searchlight On Demand, Movies on Demand, HD on Demand). As households are likely to be less sensitive to changes in channel positions for these kinds of networks (or the second instance of any network) than for the first instance of a network, I chose to focus on the latter.²

- 49. As a result of this decision, a network's channel position in my analysis corresponds to the channel position of its <u>first instance</u> in a channel lineup, counting from below. In what follows, I will usually refer only to a network's channel position that should be understood to be the network's "first" such channel position.
- 50. I next analyzed changes in news neighborhoods for this set of headends. I identified which headends did not have a news neighborhood in 2011, but did in 2012. I also identified news channels which were not listed as part of a news neighborhood in 2011, but were in 2012.
- 51. The first search produced four headends which satisfied the criterion of not having a news neighborhood in 2011, but having a news neighborhood in 2012. Of these, two stood out as creating news neighborhoods of major news channels without including Bloomberg. These were on headends whose first community served alphabetically are Crescent City, FL and Claxton, GA.
- 52. The second search identified in the TMS data two headends which added MSNBC or CNBC adjacent to existing neighborhoods without including Bloomberg. These were on headends whose first community served alphabetically are Bethel, CT and Etna, NH.

14

² The first instance of each of the multiplexed/overflow/on demand networks will of course remain as part of the analysis along with the first instance of all other networks. It is just the duplicate networks in higher channel positions that will not count.

- TMS labeled headend id: FL09660. As identified in the TMS data, the Headend Location is "Welaka" and the Community Name is Crescent City. The headend also serves Georgetown, Pomona Park, and Satsuma. Based on the TMS data, it is clear that a change in the channel position was reported to TMS and is reflected in Comcast's xfinityty web site and reflects that a new news neighborhood was created by moving CNBC and Fox News next to CNN and HLN, so that the lineup is: Fox News (33), CNN (35), HLN (36) and CNBC (37). BTV was left in its outlying position on channel 251. The 2011 TMS data does not include the same channel grouping.
- 54. To confirm the accuracy of the new news neighborhood, I used Comcast's xfinitytv interactive channel lineup tool on its web site. The first step is to provide the zip code for the area to be served. When entering the zip code for Crescent City (32112) using Comcast's xfinitytv interactive channel lineup tool for Crescent City, a choice of seven different channel lineups are provided to the user Comcast's xfinity digital lineup listed for Crescent City, FL is Comcast Walaka Digital. If the Welaka Digital Lineup is chosen, Fox News (33), CNN (35), HLN (36) and CNBC (37) are available on the same channels as is reported in the 2012 TMS data for Crescent City. Based on the TMS data, it is clear that a change in the channel positions was reported to TMS and is reflected in Comcast's xfinityty web site. Any resulting difference from Comcast's findings may be a result in TMS labeling its data differently than Comcast's xfinityty web site.
- 55. <u>Claxton, GA</u>. I identified a new news neighborhood in Claxton, GA that TMS labeled headend id: GA10436. As identified in the TMS data, the Headend Location is "Claxton" and the Community Name is Claxton. The headend also serves Daisy and Hagan and Metter was added in 2012. Based on the TMS data, it is clear that a change in channel position was reported to TMS and is reflected in Comcast's xfinityty web site indicating that a new news neighborhood was

created to include the following: CNBC (28), MSNBC (29), CNN (30), HLN (31), and Fox News Channel (32). The 2011 TMS data does not include the same channel grouping.

- 56. To confirm the accuracy of the new news neighborhood, I used Comcast's xfinitytv interactive channel lineup tool on its web site. The first step is to provide the zip code for the area to be served. When the zip code for Claxton is entered (30417) a choice of six different channel lineups are provided to the user. Comcast's xfinity digital lineup listed for Claxton, GA is Comcast Claxton Digital. If the Claxton Digital Lineup is chosen, CNBC (28), MSNBC (29), CNN (30), HLN (31), and Fox News Channel (32) are listed as channels 28 to 32 respectively, which matches the 2012 TMS data for Claxton. Based on the TMS data, it is clear that a change in the channel positions was reported to TMS and is reflected in Comcast's xfinitytv web site. Any resulting difference from Comcast's findings may be a result in TMS labeling its data differently than Comcast's xfinitytv web site.
- 57. I also identified two markets where Comcast moved Comcast-owned MSNBC to a more favorable channel position adjacent to existing news neighborhoods. Those markets are Bethel, CT and Etna, NH. On both headends, BTV was not moved from its outlying channel position onto a new channel closer to the existing news neighborhood.
- 58. <u>Bethel, CT</u>. For the Bethel, CT cable system that TMS labeled headend id: CT06404. As identified in the TMS data, the Headend Location is "Danbury" and the Community Name is Bethel. The headend also serves Danbury, New Fairfield and Ridgefield. The 2012 TMS data shows that a change was reported to TMS and is reflected in Comcast's xfinityty web site indicating that MSNBC was moved from channel 26 to channel 63, placing it adjacent to an existing news

neighborhood with Fox News (59), CNBC (60), HLN (61), and CNN (62). BTV was left in its outlying position on channel 178.

- 59. To confirm the accuracy of the new news neighborhood, I used Comcast's xfinitytv interactive channel lineup tool on its web site. When entering the zip code for Bethel (06801) using Comcast's xfinitytv interactive channel lineup tool for Bethel, a choice of three different channel lineups is provided to the user. Comcast's xfinitytv digital lineup listed for Bethel, CT is Comcast Danbury Digital. If the Danbury Digital Lineup is chosen, MSNBC is on channel 63 in a news neighborhood with Fox News (59), CNBC (60), HLN (61) and CNN (62). Based on the TMS data, it is clear that a change in the channel position for MSNBC was reported to TMS and is reflected in Comcast's xfinitytv web site. Any resulting difference from Comcast's findings may be a result in TMS labeling its data differently than Comcast's xfinitytv web site.
- 60. Etna, NH. For the Etna, NH cable system that TMS labeled headend id: NH28408. As identified in the TMS data, the Headend Location is "Etna" and the Community Name is Lebanon. The headend also serves Hartford, VT; North Hartland, VT; Norwich VT; Quechee, VT; West Lebanon, NH; White River Junction, VT; and Wilder VT. The TMS data also states that in 2011, the Lebanon headend served the following additional communities: Lebanon, NH; Cannan, NH; Enfield, NH; and Hanover NH. The 2012 TMS data shows that a change was reported to TMS and is reflected in Comcast's xfinityty web site indicating that Comcast-owned MSNBC was moved from channel 114 to a more favorable channel position at channel 25, adjacent to CNBC (24), Fox News (27), CNN (29), HLN (30), and The Weather Channel (31). Based on the TMS data, in 2011, channel 25 was vacant on both the Lebanon and Claremont headends. BTV was left in its outlying position on channel 128.

channel lineup tool on its web site. The first step is to provide the zip code for the area to be served. When the zip code for Etna is entered a choice of three different channel lineups are provided to the user but none of those lineups match the TMS data. When the zip code for Enfield (03748) is entered into the xfinityty channel lineup tool, a choice of six different channel lineups are provided to the user. If the Claremont Digital Lineup is chosen, MSNBC is listed at channel 25.

Based on the TMS data, it is clear that a change in the channel position for MSNBC was reported to TMS and is reflected in Comcast's xfinityty web site. Any resulting difference from Comcast's findings may be a result of TMS labeling its data differently than Comcast's xfinityty web site. Even if the labeling is different, it does not change the fact that there was a change in channel position for MSNBC, at either the Lebanon or Claremont headend, since the TMS data reflects that channel 25 was vacant at both headends in 2011 and MSNBC is now on channel 25 in at least one of the markets.

Dated: April 27, 2012

Ali Yurukoghu

Appendix A

ALI YURUKOGLU

http://www.stanford.edu/~ayurukog yurukoglu_ali@gsb.stanford.edu

AFFILIATIONS

Assistant Professor of Economics, Stanford University Graduate School of Business, July 2009-Faculty Research Fellow, National Bureau of Economic Research, May 2011-

EDUCATION

Ph.D. in Economics, NYU Stern, 2009

Thesis Title: Price Discrimination and Vertical Relationships in Multichannel Television.

Committee: Ariel Pakes, Luis Cabral, John Asker, Allan Collard-Wexler

Completed coursework for M.S. in Mathematics.

B.A. in Economics and Math, Northwestern University, 2004 (Honors in Economics).

SCHOLARSHIPS, HONORS AND AWARDS

2011 Fletcher-Jones Faculty Scholar 2009 Review of Economic Studies Tour 2009 Harold W. MacDowell Award 2008-2009 Jules I. Bogen Fellowship

2006-2007 NYU Stern Entertainment, Media, and Technology Department Doctoral Dissertation Grant

SEMINARS AND CONFERENCE PRESENTATIONS

2012 Duke Empirical Micro Jamboree

2011 Harvard, Hebrew University Jerusalem, Ben Gurion University

2010 IOS at AEA Meetings, UCSC, IFN Stockholm, Cisco Systems, Business Decisions

Conference Vancouver, UC Berkeley

2009 Stanford GSB, Yale SoM Marketing, Princeton, Columbia GSB, UCLA, Duke, MIT Sloan,

Chicago GSB Marketing, Northwestern, Drexel, LSE, Brown Econometrics of Demand

Conference, Munich CES iFo, ULB, Oxford, Yale, UMN, FRB Minneapolis (One week visit),

University of Chicago, UW Madison, UC Davis, MIT, BU

2008 NBER Summer Institute - IO, IIOC

RESEARCH PAPERS

The Welfare Effects of Bundling in Multichannel Television (with Gregory S. Crawford) American Economic Review, Vol. 102, No. 2, April 2012

Combines earlier papers:

Bundling and Vertical Relationships in Multichannel Television (Job Market Paper) The Welfare Effects of Bundling in Multichannel Television (with Gregory S. Crawford)

Medicare Reimbursements and Shortages of Sterile Injectable Pharmaceuticals

WORK IN PROGRESS

Political Activity by Regulated Electric Utilities (with Claire Lim)
Vertical Integration in Multichannel Television (with Greg Crawford, Robin Lee, and Michael Whinston)

Appendix B

List of (46) Television Networks Included as Possible News and Public Affairs Networks (TMS Channel Names)

1. National News Networks (4)*3

Cable News Network

Fox News Channel

HLN (Formerly Headline News)

MSNBC

2. Business News Networks (4)*

CNBC

Bloomberg Business Television

CNBC World

Fox Business

3. National Public Affairs Networks (3)*

CSPAN

CSPAN2

CSPAN3

4. Local News Networks (17)*

10 News 2

Chicagoland Television News

Local News (9 News Colorado)

New England Cable News

News 12 New Jersey

News Channel 3 Anytime

News Channel 5

Newschannel 207 (KMGH News)

Northwest Cable News

Pittsburgh Cable News Channel

Virginia News Channel

³ All groups are included in possible news channels totals for a given headend. Starred (*) network groups (1)-(5) + (8) are included in the definition of news neighborhoods.

News Channel 8

Ohio News Network

News 12 Westchester (WEST12)

SNN News 6

Texas Cable News

News First

5. Local, State, or Regional Public Affairs Networks (5)*

CTN Connecticut Public Affairs

California Channel

Pennsylvania Cable Network

New York State Legislative Channel

TV WASHINGTON

6. HD News Networks (6)

CNBC HD

CNN HD

Fox Business HD

Fox News Channel HD

HLN HD

MSNBC HD

7. Spanish-Language News Networks (5)

CABLENOTICIAS

CNN En Español Latin America

CNN En Español- Mexico and US

CNN en Espanola United States

CNN En Español - All Feeds

8. Other News Networks Included in the Definition of News Neighborhoods (1)*

CNN International

9. Other News Networks Excluded from the Definition of News Neighborhoods (1)

CNN On Demand